

### **REMARKS**

These remarks are responsive to the Office Action made final dated January 12, 2005 (hereinafter referred to as the "Office Action"). Claims 1-22 were pending at the time of the last examination. Claims 2, 10 and 13 are amended herein. Since the amendments reduce the number of issues for appeal, the undersigned respectfully requests entry of the amendments despite the final status of the Office Action.

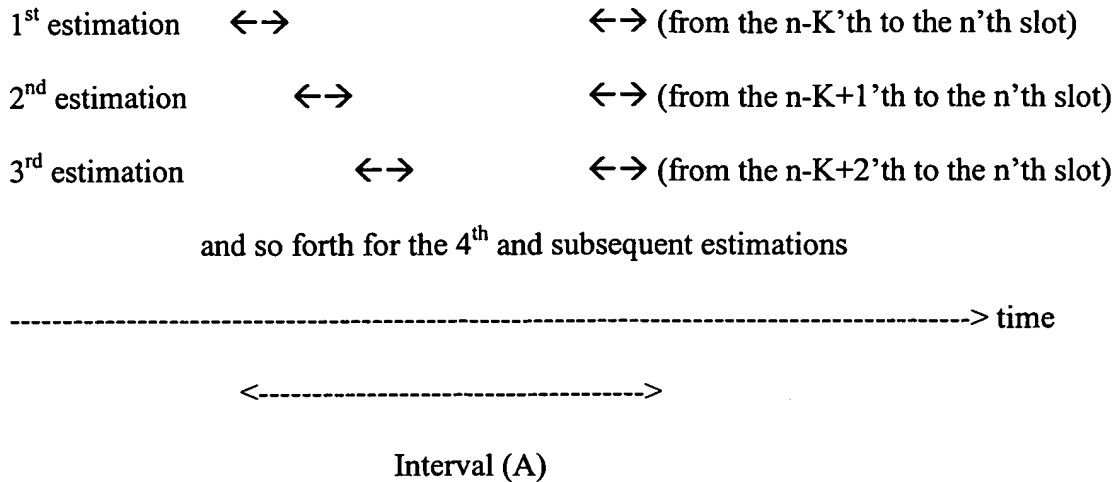
Section 5 of the Office Action states that the information disclosure statement filed August 2, 2004 was not considered because the information disclosure statement allegedly did not include a PTO form 1449 form. The undersigned respectfully disagrees with this allegation. A corresponding PTO form 1449 was included with the information disclosure statement correspondence dated August 2, 2004. In support of this, the undersigned provides the evidence disclosed in Exhibit A. The evidence includes a copy of all of the correspondence filed on August 2, 2004 including the PTO form 1449. Also, the return receipt postcard and corresponding express mail receipt are also provided in Exhibit A. As can be seen from the return receipt postcard, there is a description of the contents submitted, which is stamped by the Office of Initial Patent Examination (OIPE) of the United States Patent and Trademark Office, and which includes the Express Mail number corresponding to the express mail receipt, having a "Date In" field filled out of August 2, 2004. Accordingly, the undersigned requests consideration of the references placed with the file and submitted on August 2, 2004. In the event that the reference will continue not to be considered, please inform the undersigned so that an appropriate petition may be filed to consider the PTO form 1449 form as being timely filed on August 2, 2004.

Section 6 of the Office Action rejects Claims 2, 7, 13 and 18 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which the applicants regard as the invention. Claims 2 and 13 have been amended herein to correct any indefiniteness. Claims 7 and 18 were rejected based on dependency from Claims 2 and 13, respectively. Claim 10 is additional amended to remove a phrase previously deleted, but inadvertently left in the claims during the last amendment.

Section 7 of the Office Action rejects Claims 1, 4, 5, 8, 12, 15, 16 and 19 under 35 U.S.C. 103(a) as being unpatentable over United States patent number 6,438,362 (hereinafter referred to as "Amezawa") in view of United States patent number 5,590,409 (hereinafter referred to as "Sawahashi"), and further in view of United States patent number 5,732,334 (hereinafter referred to as "Miyake").

Amezawa discloses an estimator that obtains an estimated value using a moving-average method. Sawahashi discloses that a mobile station measures an average received power per transmission power control period of a signal sent from a base station and detects a power difference between the average received power of a current transmission power control period and that of one of the previous transmission power control periods. However, Sawahashi only suggests using one prior arbitrary transmission power control period.

In contrast, in accordance with the principles of the present invention of Claims 1 and 12, the length of time of the time intervals used to estimate propagation path variation values are different from each other. In particular, each time interval is the time from a different respective prior transmit power control section and the current transmit power control section. The following chart illustrates this concept more intuitively.



where " $\longleftrightarrow$ " represents a transmission control section, and where the horizontal position of the symbol " $\longleftrightarrow$ " represents the time of the corresponding transmission control section, with time proceeding rightward.

The principles of the present invention makes it possible to measure received signal power more precisely by estimating propagation path variations in all transmit power control sections in an interval (e.g., "Interval (A)" of the above figure) and obtaining products of received power (or amplitude) and a result of the propagation path variation estimation for each transmit control section.

If the description of Sawahashi is combined with that of Amezawa, the received power should be obtained by multiplying a result of propagation path variation estimation by the result of average received power measurement in one transmission power control period. In such a combination, the various multiple propagation path estimation values are not obtained with respect to a single current transmit control section. This is much different from the principles of the present invention, which improves the precision by averaging received signal power in the plurality of transmit power control sections.

With reference to Miyake, a multiplier obtains correction data defined as a value for correcting reference control data by multiplying error data by coefficient data. The description of Miyake corrects data using a sample in the past. However, there is no description regarding an operation to correct a plurality of prior samples and to average these samples. In contrast, the principles of the present invention correct the plurality of prior samples (e.g., received power) using correction values (i.e., propagation path estimation values) in each time period to improve the precision.

Accordingly, independent Claims 1 and 12 are not unpatentable by even the combination of Amezawa, Sawahashi, and Miyake.<sup>1</sup> Claims 4, 5 and 8 depend from Claim 1, and thus are not unpatentable over the combination to the extent that they depend from Claim 1, for at least the reasons provided for Claim 1. Similarly, Claims 15, 16 and 19 depend from Claim 12, and thus are not unpatentable over the combination to the extent that they depend from Claim 12, for at least the reasons provided for Claim 12. Thus, this rejection should be withdrawn.

Section 9 of the Office Action rejects Claims 2 and 13 under 35 U.S.C. 103(a) as being unpatentable over Amezawa in view of Sawahashi, and further in view of Miyake. In accordance with the principles of the present invention of Claims 2 and 13, the length of time of the time intervals used to estimate propagation path variation values are different from each other. In particular, each time interval is the time from a different respective prior transmit power control section and the current transmit power control section. As explained above for Claims 1 and 12, this concept differs significantly from what is taught by even the combination of Amezawa, Sawahashi, and Miyake, and provides precision improves over even such a

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<sup>1</sup> Since none of the combinations describe, teach or suggest all of the recited features of any of the independent claims, it is not necessary that a full response to the Office Action also include arguments against any of the combinations of references. The lack of such an argument in this response should not, therefore, be considered as acquiescing that the respective combination is appropriate.

combination. Accordingly, independent Claims 2 and 13 are not unpatentable by even the combination of Amezawa, Sawahashi, and Miyake, and this rejection should be withdrawn.

Section 10 rejects Claims 3 and 14 under 35 U.S.C. 103(a) as being unpatentable over Amezawa in view of Sawahashi and Miyake, and further in view of United States patent number 5,297,161 (hereinafter referred to as "Ling"). Claims 3 and 14 depend from Claims 1 or 2, and 12 or 13, respectively. However, as explained above, Claims 1, 2, 12 and 13 each differ significantly from even the combination of Amezawa, Sawahashi and Miyake. In particular, the combination does not describe, teach or suggest, that the length of time of the time intervals used to estimate propagation path variation values are different from each other, where each time interval is the time from a different respective prior transmit power control section and the current transmit power control section. Ling also does not teach this feature. Accordingly, even the combination of Amezawa, Sawahashi, Miyake and Ling do not teach or suggest the recited independent claims, and thus not teach or suggest Claims 3 and 14. Accordingly, this rejection should be withdrawn.

Section 11 rejects Claims 6 and 17 under 35 U.S.C. 103(a) as being unpatentable over Amezawa in view of Sawahashi and Miyake, and further in view of United States patent number 5,377,809 (hereinafter referred to as "Rezaiifar"). Claims 6 and 17 depend from Claims 1 and 12, respectively. However, as explained above, Claims 1 and 12 each differ significantly from even the combination of Amezawa, Sawahashi and Miyake. In particular, the combination does not describe, teach or suggest, that the length of time of the time intervals used to estimate propagation path variation values are different from each other, where each time interval is the time from a different respective prior transmit power control section and the current transmit power control section. Rezaiifar also does not teach this feature. Accordingly, even the

combination of Amezawa, Sawahashi, Miyake and Rezaiifar do not teach or suggest the recited independent claims, and thus not teach or suggest Claims 6 and 17. Accordingly, this rejection should be withdrawn.

Section 12 rejects Claims 7 and 18 under 35 U.S.C. 103(a) as being unpatentable over Amezawa in view of Sawahashi and Miyake, and further in view of United States patent number 5,604,766 (hereinafter referred to as "Dohi"). Claims 7 and 18 depend from Claims 2 and 13, respectively. However, as explained above, Claims 2 and 13 each differ significantly from even the combination of Amezawa, Sawahashi and Miyake. In particular, the combination does not describe, teach or suggest, that the length of time of the time intervals used to estimate propagation path variation values are different from each other, where each time interval is the time from a different respective prior transmit power control section and the current transmit power control section. Dohi also does not teach this feature. Accordingly, even the combination of Amezawa, Sawahashi, Miyake and Dohi do not teach or suggest the recited independent claims, and thus not teach or suggest Claims 7 and 18. Accordingly, this rejection should be withdrawn.

Accordingly, each of the rejections should be withdrawn, and favorable action is respectfully requested. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 24<sup>th</sup> day of March, 2005.

Respectfully submitted,



Adrian J. Lee  
Registration No. 42,785  
Attorney for Applicant  
Customer No. 022913

AJL:ds  
DS0000003261V001

# EXHIBIT A



TO THE UNITED STATES PATENT AND TRADEMARK OFFICE:  
PLEASE STAMP AND RETURN. THANK YOU.

**SUBMITTED:**

Transmittal for Information Disclosure Statement (2 page; duplicate);  
Information Disclosure Statement Under 37 C.F.R. § 1.97 (2 pages);  
Form PTO-1449 Listing of References (1 page);  
Legible Copy of References; (6 references)  
PTO 2038 Credit Card form for \$180.00  
Certificate of Express Mail (EV510294515US);  
Acknowledgment Postcard

Applicant: Masafumi Usuda et al.

Title:

CDMA Synchronization Apparatus and Method

RECEIVED SIGNAL POWER MEASURING APPARATUS AND METHOD

MOBILE COMMUNICATION SYSTEM

Serial No.: 09/619,361

Filing Date: July 19, 2000

Docket: 15689.54

Date of Mailing: August 2, 2004



**CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)**

Applicant(s): Masafumi Usuda et al.

Docket No.

15689.54

Application No.

09/619,361

Filing Date

July 19, 2000

Examiner

Unknown

Customer No.

022913

Group Art Unit

2731

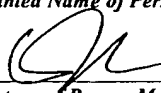
Invention: **CDMA RECEPTION APPARATUS AND RECEIVED SIGNAL POWER MEASURING APPARATUS  
IN CDMA MOBILE COMMUNICATION SYSTEM**

I hereby certify that the following correspondence:

(see below)

*(Identify type of correspondence)*

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

August 2, 2004*(Date)*Adrian J. Lee*(Typed or Printed Name of Person Mailing Correspondence)**(Signature of Person Mailing Correspondence)*EV 510294515 US*("Express Mail" Mailing Label Number)***Note: Each paper must have its own certificate of mailing.**

Transmittal for Information Disclosure Statement (2 page; duplicate);  
Information Disclosure Statement Under 37 C.F.R. § 1.97 (2 pages);  
Form PTO-1449 Listing of References (1 page);  
Legible Copy of References; (6 references)  
PTO 2038 Credit Card form for \$180.00  
Certificate of Express Mail (EV510294515US);  
Acknowledgment Postcard

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
**(Under 37 CFR 1.97(b) or 1.97(c))**

Docket No.  
**15689.54**

In Re Application Of: **Masafumi Usuda et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
<b>09/619,361</b>	<b>July 19, 2000</b>	<b>Unknown</b>	<b>022913</b>	<b>2731</b>	<b>Unknown</b>

Title: **CDMA RECEPTION APPARATUS AND RECEIVED SIGNAL POWER MEASURING IN CDMA  
MOBILE COMMUNICATION SYSTEM**

Address to:  
**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

**37 CFR 1.97(b)**

1. ☐ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

2. ☒ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:
- ☐ the statement specified in 37 CFR 1.97(e);
- OR**
- ☒ the fee set forth in 37 CFR 1.17(p).

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
15689.54

In Re Application: **Masafumi Usuda et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/619,361	July 19, 2000	Unknown	022913	2731	Unknown

**CDMA RECEPTION APPARATUS AND RECEIVED SIGNAL POWER MEASURING IN CDMA  
MOBILE COMMUNICATION SYSTEM**

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **23-3178**  
as described below.
- ☐ Charge the amount of \_\_\_\_\_
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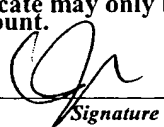
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Dated: **August 2, 2004**

  
\_\_\_\_\_  
Signature  
**ADRIAN J. LEE**  
Attorney for Applicant  
Reg. No.: 42,785  
Customer No.: 022913

CC:

EXPRESS MAIL NO. EV 510294515 US

PATENT APPLICATION  
Docket No: 15689.54

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of		)	
	Masafumi USUDA et al.	)	
Serial No.:	09/619,361	)	Art Unit
Filing Date:	July 19, 2000	)	2661
Confirmation No.:	2184	)	
For:	CDMA RECEPTION APPARATUS AND RECEIVED SIGNAL POWER MEASURING APPARATUS IN CDMA MOBILE COMMUNICATION SYSTEM	)	
Examiner:	Ian N. Moore	)	
Customer No.:	022913	)	

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed list of references is disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof is also enclosed.

In accordance with 37 C.F.R. § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided. The concise explanation for Japanese Publication No.: 06-013956 is provided in the English abstract of that publication. The concise explanation for Japanese Publication No.: 11-122212 is provided in the English abstract of that publication. The concise explanation for Japanese Publication No.: 10-013364 is provided in the English abstract of that publication. The concise explanation for Japanese Publication No.: 10-126337 is provided in the English abstract of that publication. The concise English translation is attached for Japanese non-patent reference, "An Investigation on SIR Measurement Methods in Adaptive Transmit Power Control for DS-CDMA".

((Promptness Certification or Submission Fee)  
Under 37 C.F.R. § 1.97(c))

In accordance with 37 C.F.R. § 1.97(c), a PTO 2038 Credit Card form in the amount of \$180.00 is enclosed to secure consideration of the references submitted with this Information Disclosure Statement. Please credit any over payment or charge any additional fees to Deposit Account No. 23-3178 of the undersigned.

DATED August 2, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'AJL' with a stylized flourish.

ADRIAN J. LEE  
Attorney for Applicant  
Registration No. 42,785  
Customer No. 022913

AJL: ds  
DS0000002299V001

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket Number (Optional) <b>15689.</b>	Application Number <b>09/619,361</b>
	Applicant(s) <b>Masafumi Usuda et al.</b>	
	Filing Date <b>July 19, 2000</b>	Group Art Unit <b>2731</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**U.S. PATENT APPLICATION PUBLICATIONS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	1	06-013956	1/21/1994	Japan	H04B7	26	✓	
	2	11-122212	4/30/1999	Japan	H04J13	00	✓	
	3	10-013364	1/16/1998	Japan	H04B17	00	✓	
	4	10-126337	5/15/1998	Japan	H04B7	26	✓	

**OTHER DOCUMENTS** *(Including Author, Title, Date, Pertinent Pages, Etc.)*

5	<b>B-330</b> <b>"Study on an SIR Measuring Method in DS-CDMA Adaptive Transmission Power Control" by Syunsuke Kiyoo et al.,</b> <b>Handbook b-330 of Lectures in IEICE Communication Society Conference in 1996 (concise English translation is attached)</b>
6	<b>Official Notice of Rejection; Case No.: DCMH110067</b> <b>Japanese Patent Application No.: 11-206789</b>

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.